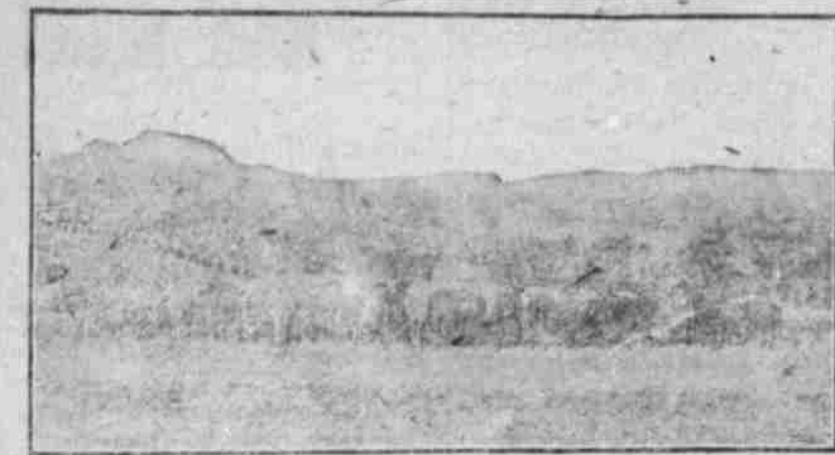
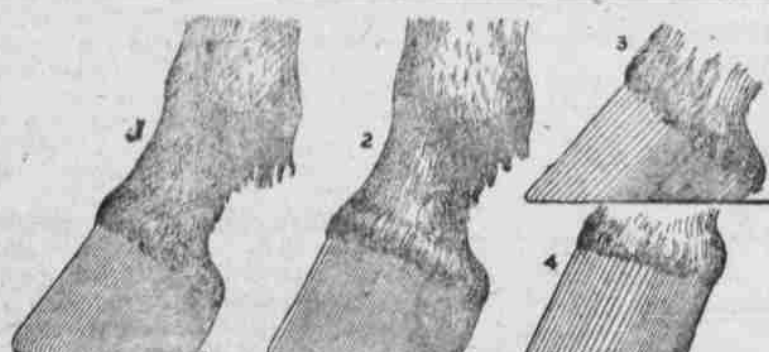


EAST TENNESSEE SHOWS INTEREST IN LIVE STOCK



The ever-increasing interest in live stock in Tennessee takes expression in different ways. This picture shows the cattle exhibited at last year's fat stock show. This show is held annually at the University of Tennessee, Knoxville. At it fat steers, barrows, and wethers are exhibited. The event is made possible by the bankers of Knoxville, who put up \$1,000 in premiums to be used as thought best by the committee managing the show. The date set for this year is January 22 to 26, 1917. The show is open to all counties in East Tennessee. After the show the farmers sell their animals on the market, for which, of course, they have been fattening them.

LOOK TO YOUR HORSES FEET FOR HIS STRENGTH



(Division of Extension, University of Tennessee, Knoxville.)

The value of a horse is in his feet. Poor feet make a horse valueless in proportion to the weakness of the feet. Study these pictures.

Figure 1 is given as an example of a good pastern for the fore limb. The pastern is that portion for several inches just above the hoof.

Figure 2 is given as the example for a good pastern on the hind limb.

Figure 3 shows a low heel. This defect is peculiar to the fore feet, and because most of the weight of the body falls on these feet, the low heels are easily bruised.

Figure 4 shows the high heel. Such a condition takes away the elasticity from the animal's action and results in several bone diseases. It may be a part of the animal's natural make-up, or it may be caused from neglect of the animal's feet.

A knowledge of these points about farm animals is needed on every farm. Every farmer should be studying them. If possible, some member of the family should attend the annual Short Course in Agriculture held at the College of Agriculture, University of Tennessee, Knoxville. This year's course begins January 1.

"PRODUCE MORE LIVE STOCK"

That Is Injunction of Editor Who Has His Ear To the Ground

LIVE STOCK INCREASE PROFITS

To Do Well the Farmer Must Study Best Methods—This Is Made Possible at the Short Course in Agriculture at Knoxville.

In commenting upon the fact that a new era of agriculture is at hand for East Tennessee, the editor of the Journal and Tribune, one of Knoxville's dailies, has established a creed possible of adoption in any part of the state.

After expressing his pride on the section of the state in which his paper is located, the editor says:

"Now, beef cattle are bringing higher prices than ever before known in the history of the cattle raising industry. It behooves every farmer to put his lands to grass and produce dairy cattle, beef cattle, or dual purpose animals. The possibilities of dairying are growing day by day in proportion as the towns and cities increase in population, and if the dairymen will but adopt scientific methods in the production of milk and butter, organize cow-testing associations in order to weed out the 'boarding ladies' in their barns and keep in touch with the State College of Agriculture in order to keep abreast of the dairying times, their problems will have been solved. In the matter of raising beef cattle, much can be accomplished through the purchase of pure-bred sires of any of several of well-known breeds, including the Hereford, Shorthorn, Aberdeen Angus and Red Polled, the dual purpose animals being the milking strain of Shorthorns and the Red Polled."

"The College of Agriculture of the State University, through its annual short courses, offers exceptional opportunities to farmers to learn scientific methods in the raising, feeding, judging and selling of beef cattle and these opportunities should not be overlooked, for the new era of agriculture in East Tennessee is at hand."

This reference to the Short Course in Agriculture which is held at the State University every winter is well placed. Every state that is building up a strong agriculture is doing so through its Short Course. This method of instruction reaches the farmers who desire immediate assistance. The courses are planned to give that aid this year's Short Course has for its dates January 1 to February 10. Rail roads have made special rates.

ACTS ABOUT FARMERS AND THEIR FARMS— AND THEIR FAMILIES

Short courses and camps for girls have been held in several counties this past year.

One girl in Bradley county helped to pay the mortgage on her father's place through her activities in the girls' club.

Eleven homes in Montgomery county have installed water works under the direction of the county home demonstration agent.

Over 100 meetings were held this past year by boys and girls in poultry clubs, at which they had regular instruction from trained men.

Federal and state publications treating farm subjects may be secured by residents of the state, free of cost, by addressing the Division of Extension, University of Tennessee, Knoxville.

At the beginning of 1917 there were over fifty counties employing farm demonstration agents and so assisting the Division of Extension of the University of Tennessee in the state agricultural educational work.

Three counties in the state have used native materials, such as shucks dyed, wheat straw, and cat-tails, for making straw braid from which to make hats. The hats the girls have made for themselves and others have cost from fifteen to forty cents each. And they were not cheap-looking hats, either!

GRADE THE FARM PRODUCTS.

If farmers in Tennessee are to make the most from their farms, they must grade the products they put upon the market, according to W. A. Schoenfeld, specialist in marketing and rural organization, of the Division of Extension of the University of Tennessee, Knoxville.

He points out that at a visit which he made to Chicago he found Arkansas sweet potatoes competing with Tennessee potatoes. At that time the potatoes from Tennessee were not graded. Every size possible was in the containers from this state. The Arkansas potatoes were selling by grades as follows: Prime, 90 cents; Choice, 75 cents; Jumbo, 60 cents. The ungraded Tennessee potatoes were selling for 55 cents a bushel. It would have paid the shippers of these potatoes to grade.

This corresponds with the shippers' experience around Gleason. When they first started the shipments several years ago they got a price of \$1.00 a bushel in bulk in the car. Now they find that they must grade their products to sell them.

The buying public demands well-arranged products, and the farmer who heeds the signs of the times will watch the markets.

MIX YOUR OWN STOCK FEEDS

No Farmer Need To Pay the High Prices Asked For "Stock Tonics"

LET HIM MAKE THEM AT HOME

A Few Well-Known Drugs and Feeds, When Put Together in Proper Amounts, Make a Feed Equal to Any of the So-called "Stock Foods."

(By Dr. C. D. Lowe, Live Stock Specialist of the Division of Extension, Knoxville.)

Thousands of dollars are wasted each year in Tennessee by those who buy and use so-called "stock foods" and "stock tonics."

Impartial tests of these materials have been made by various state experiment stations and the results obtained which show their worthlessness should be generally heeded.

More than twenty different experiments conducted with over one thousand animals at twelve different stations are sufficient to show conclusive results. In no instance did the so-called "foods" return their cost and in several cases their use seemed to interfere with the proper returns from the other feeds fed in connection with them.

These substances do not qualify, either as real medicine, because they contain too small a percentage of drugs to be effective in the treatment of disease. They are made up largely of a "filler," which is usually some simple feed like cottonseed hulls, bran or alfalfa meal. In this is carried various roots, herbs and bark, together with charcoal, sulphur, salt, etc. Sometimes coloring matter is used simply to disguise the appearance of the real contents. Practically all of them contain common salt, and it is upon this constituent that they depend for palatability.

If you think you must use these "foods" for your stock, why not buy the ingredients and mix them yourself? You can save from 50 per cent to 500 per cent by so doing.

A formula, which is so nearly the average proprietary stock food that neither the owner nor his stock will know the difference, is as follows:

Ginger	2 pounds
Cayenne pepper	1 "
Cottonseed meal	11 "
Common salt	5 "
Wheat bran	25 "
Fenugreek	2 "
Powdered gentian	2 "
Powdered sulphur	2 "
Potassium nitrate	2 "
Resin	2 "
Powdered charcoal	5 "

While the use of the above will not put your stock on the market in thirty days' less time, nor double the flow of milk, nor prevent cholera in hogs, tuberculosis in cattle, roup in chickens or glanders in horses, it has the advantage of being less expensive than the prepared foods and will give as good results.

COW TESTING PROVES POPULAR WITH FARMERS

This Is Explained By the Fact That Profits Increase—What Cow-Testing Associations Do.

(By C. A. Hutton, Division of Extension, University of Tennessee, Knoxville.)

Where there are enough cows to justify the action on the part of farmers, cow-testing associations are desirable. Several communities are already organized and have testers employed.

Conditions for a cow-testing association are ideal when there are 400 cows in about 25 herds. Several Tennessee counties are coming up to this standard.

A cow-testing association will do much for any dairy community.

It furnishes an exact record of production of each cow in the herd, with a record of the cost of feed consumed and the net profit per cow. About one-third of the cows in Tennessee are kept at a loss. It enables one to weed out the unprofitable cows.

The records of production enable one to feed more intelligently and more economically. It is a common practice to feed all the cows in the herd alike. Under these conditions the poor cows will receive too much, and the good ones will not get enough. The proper way is to feed each cow in proportion to the amount of milk she gives. When this practice is adopted it usually results in greater production of milk at less cost for feed.

The tester is able to advise with the owner each month in regard to the most economical feed to use, and also to balance the rations for the owner. The members can co-operate in buying cottonseed meal and other feed stuffs in carload lots, thus effecting a saving.

Cow-testing associations stimulate community breeding, exchange of bulls, and a spirit of friendly rivalry, and foster a better social spirit in the community.

It enables one to tell which are the best cows from which to raise heifer calves.

The cost is a trifle as compared to the returns.

IF GIRLS ARE TO BE HEALTHY

They Must Observe Several Common, Every-day Rules to Protect Themselves

ALL GIRLS SHOULD BE STRONG

Health Specialist of the Division of Extension of the University of Tennessee, Knoxville, Sends Out Special Letter—Also Put Out General Health Bulletin.

"Have you tried sleeping with your windows up, remembering the value of pure, fresh air?" is one question Mrs. Lena Warner, health specialist of the Division of Extension, University of Tennessee, Knoxville, asks in a letter sent especially to the coming club girls of Tennessee. She then gives several very well-known laws of health which so few follow as they should.

"I want to compliment the club girls on their good judgment concerning their feet," she continues.

"Now, let us have a word to say about clothes. First, the majority wear the sensible low-heel shoe, which enables them to walk well and at the same time protects the nerve centers of the body."

"By all means see that your shoes are comfortable in length and breadth. Do not depend upon any one but your self to decide this. If you will remember to keep your feet dry and legs warm, many aches and pains will be avoided that young girls of our age are apt to have. The same advice I would give you in regard to the whole body, especially in winter. As you want outdoor life during these months, you must be prepared. Heavy clothing is not at all desirable. If your clothing is too tight, you will not get warmth from it. Select your underwear with a little wool in it. See that the vests have long sleeves. Avoid dressing too warmly for indoors and always have an extra wrap for outdoors. Sitting, scantily clothed, in damp skirts and wet shoes, has brought death to many a young girl. In this way many catch colds, develop pneumonia, tuberculosis and other serious illnesses."

"One thing, girls, we are quite grateful for, and that is that Dame Fashion has decreed we shall not draw in the waist. You not only have better figures, more graceful carriage, but the organs inside the abdomen and pelvis retain their normal position. I do not now consider corsets harmful, for their chief use is to give the skirts the proper hang."

"By all means, remember the teeth. To keep them clean is a first essential. A pinch of common table salt or cooking soda is very good to use with the tooth brush daily. Don't be afraid of the dentist. He is a faithful friend. Pay him a visit at least twice a year."

"Most diseases are preventable through cleanliness. If we observe the simple health laws, even when we come in contact with filthy diseases, we are not apt to contract them."

"Last, but not least, know and be true to yourself. Learn the great lesson of self-control. Cultivate a desire for knowledge. Keep the mind and body pure and clean."

Mrs. Warner has written a publication which is sent free to residents of Tennessee. This publication is called "What To Do To Keep Well." If you care for a copy, send your request to Division of Extension, University of Tennessee, Knoxville.

BUY MORE LIVE STOCK RATHER THAN MORE LAND

(By C. D. Lowe, Division of Extension, University of Tennessee, Knoxville.)

That live stock pays on the farms of a nearby state may be seen by the following figures secured from eighty-one farms in one community. The farms were not selected farms, but were taken as they lay along the road.

These farms were divided into three groups according to the amount of live stock kept. One-third of the farms were found to have over 20 head each of cattle, or their equivalent (in amount of feed consumed) in hogs, sheep or other productive live stock; one-third had between 12 and 20 head each; one-third had less than 12 head.

The heavier stocked farms returned a profit for the year of \$774 more than those with the small amount of live stock.

Another community selected at random showed nearly the same proportion. Live stock furnishes a way to increase the volume of farm business without increasing the farm area.

Through live stock much of the poorer grades of feed may be utilized to better advantage than by selling it, in fact much roughage that is ordinarily wasted can be made to give good returns. The manure obtained is essential in maintaining soil fertility.

The above figures offer some food for thought. If you are thinking of purchasing additional land, consider first whether the purchase money should not go into more live stock for the land you already own.

Are you thinking of the seed you will need for the next season? Only the best seed will bring you the best crop. Perhaps you could be raising good seed to sell to your neighbors. Have you thought about it?

TOUCH OF A BABY HAND

By HELEN MERRITT.

Madeline Grahame was worn out mentally and physically. There was nothing the matter with her except strain from overwork and a little nagging worry at the back of her brain that she had ignored for many months, but that lately had forced itself into the foreground and compelled recognition. When she found she must take it seriously, she dropped her work and sailed for Newfoundland.

The first two days out she had deck and dining saloon to herself, and it was not until the steamer reached Halifax that the tables began to fill. Then, to her consternation, she saw the man of all others she did not wish to see—the man, in fact, from whom she was running away.

He was at dinner and his back was toward her, so she slipped unseen from the saloon to her chair on deck to face her dilemma. There was no avoiding him. That she fully realized, but before she could go further in her thought she heard him say:

"Right here, steward, there seems room for another chair," and chair and rug and Peter Lansdale took possession of the space beside her.

There was an instant's silence as they looked straight into each other's eyes and then he laughed.

"Did you think I would not find you, Madeline?"

"Not after I knew you were on board; before then, yes. You have given me a surprise. Why did you come?" She asked the question pleasantly, but she was tingling with suppressed irritation that she could hardly control. The irritation was against herself at the comfortable feeling that had come over her at the sound of his voice.

She loved him. This she acknowledged, but she felt that in marriage she would sink her personality and become, if not a nonentity, something very near to it.

"I had the feeling you were going away and made it my business to find out where. I reached the pier as the gangplank was pulled aboard. Do you think it was quite fair not to tell me you were going away?" he asked abruptly.

"It was a sudden decision." He did not seem to hear her. "You ask me why I came. Because I knew you could not get away from me; that we would have ample time to thrash out our differences. Before we return I think our understanding of each other will be perfect. I will not revert to this talk. It is enough for you to feel that I am here because of you."

Thereafter there was nothing personal in their conversation. So completely did he ignore their talk on the first night out from Halifax that, even in the pleasure of his constant companionship, she began to wonder over his silence.

Near Cape Race the steamer ran into a storm and from storm into heavy, depressing fog that shut her in completely. Then, when the fog was thickest, a horrible shiver ran the length of the vessel. She had been rammed by a steamer whose ghostly shape could be seen faintly through the thickness that enveloped her.

This nearness to catastrophe left Madeline trembling, and when Peter Lansdale drew her away from the quiet but terrified crowd, she clung to him as if she would never let him go.

She expected him to hold her close, as if she was the most precious thing in the world to him. Instead, he gazed intently over her head as he put her into a chair, and told her to stay where she was until he returned.

Chilled, even in her fright, she did not mean to be left alone by the one person upon whom she had the claim of friendship, and she followed him to the rope that separated the first from the second class passengers. Pandemonium was on the other side, and in the midst was Peter, holding a baby in his arms and trying to quiet the frightened mother. He saw Madeline and before she could offer protest had given the child into her keeping and disappeared.

It was the first time she had ever held a little child, and she looked down upon it fearfully. She expected it to cry, but it poked at her eyes and caught her fingers in its chubby hand.

Before she realized what she was doing she was holding the little face close to her own and humming an air she had not heard since she was a child herself.

It was then that she glanced up into Peter Lansdale's face and the look in his eyes made her put the baby into his mother's arms and turn quickly toward the sea. She heard him say there was no danger, but all else was lost in the sudden emotion that held her in its grip. For the first time she was making the fight for a career or for the man she loved. Then came the memory of a warm little body pressed close against her heart. As that thought claimed her she felt an arm about her shoulders. Her face brushed a rough sleeve as it was lifted to that other lowered one, and she knew that Peter Lansdale, not a career, could give her complete happiness.

They were married when they reached St. Johns, and the two months she had expected to spend in wandering alone about Newfoundland were glorified by the love that passeth all understanding.

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HOW ONE TOWN HELD A MEETING

Citizens of Weakley County Can Be Proud of the Work They Did

DO IT THE GREENFIELD WAY

Any Town Can Take the Leadership and Can Conduct a Genuine Educational Campaign—Greenfield's Two-day Chautauqua Sets the Standard.

(By Charles A. Keffor, Director, Division of Extension, University of Tennessee.)

Weakley county, Tennessee, is working out the problem of town-and-country unity, and a November meeting in Greenfield, an enterprising little town of that county, marks a forward step in community development. The Greenfield preachers and the Greenfield business men put their heads together, and with the assistance of the Greenfield women, planned and carried out a two days' Farmers' Free Chautauqua. The worst thing about the affair was its name, for in the public mind the Chautauqua movement is largely a matter of entertainment, while the Greenfield meeting was in the best sense educational.

The preachers opened their churches, and one of them presided, making an admirable leader. His church, which seats five hundred people, was crowded throughout the sessions. In the mornings there was a general program for men and women. The afternoon was devoted to separate meetings for men and women, two churches being used.

Throughout, there was inspiring music, furnished by quartettes from country churches. The subjects discussed were of the most practical nature: Co-operation, good roads, live stock, seed selection, diversified farming, the relation of the town to the surrounding community, extension work in agriculture, the rural church, education, crop rotation, soil building, canning and corn clubs, civic improvement and rent rooms, home, school and church, parent-teachers' associations, eugenics—a wide range, handled by men and women who knew what they were talking about. Two excellent sermons were delivered by visiting clergymen, and the other speakers were about equally divided between men and women of the county and visitors.

An interesting feature of the Chautauqua was the dinner; it was provided by the business men and served by the ladies of the town. A big double store room was utilized and five long tables with places for 350 guests were filled more than twice each day. The dinner was a good example of what organization can accomplish—the great crowd was served quickly, quietly and well.

Who was there? Everybody; the town was full of vehicles—autos, wagons, buggies—hundreds of country people had accepted the invitation of the churches and business men of Greenfield.

And the best part of the occasion was the get-together spirit everywhere manifest. The merchants were not trying to trap purchasers, the preachers were not proselyting, the farmers were aloof, the women were not "apply"; all came to learn, to enjoy, and to know one another better. It was a great success.

Let every town in Tennessee try it the Greenfield way.

BEEES NEED PROTECTION ON TENNESSEE FARMS

Government Has Found That Hives Well Insulated Give Best Results in Every Case.

(By C. E. Bartholomew, Division of Extension, University of Tennessee, Knoxville.)

Tennessee in 1909 was third in the number of colonies of bees among all of the states in the union. She does not hold that record now. Her colonies have been destroyed, partly by that dreaded disease, foul brood, and partly because the colonies have not been protected from the Tennessee winters.

On this subject of insulation, the chief of the bureau of entomology of the United States Department of Agriculture has said some things that are worth the attention of every Tennessee farmer.

Beekkeepers have repeatedly claimed that excessive insulation is even more detrimental in winter than insufficient insulation, because of the failure of the colony to warm up on bright days. To test this theory, a colony was packed, in the fall of 1915, with 16 inches of sawdust on all sides, top, and bottom. Temperature records were made at frequent intervals every day throughout the winter and spring. The colony remained in excellent condition in every respect throughout the winter, being little affected by high winds, and after brood rearing began it built up with great rapidity. Then, to continue observation on the effect of insulation on the building up of the colony, the packing was allowed to remain all summer. Except for the impossibility of manipulating the colony, it remained in excellent condition. It seems clear, therefore, that beekkeepers need not fear any detrimental results from abundant insulation.